

REMARKS

This application has been carefully reviewed in light of the Office Action dated November 3, 2005. Claims 1, 3, 5, 6, 8, 10, 12 to 14, 16, 18, 19, 21 to 23 and 39 to 44 are in the application, with Claims 2, 4, 9, 11, 15, 17 and 20 having been cancelled herein. Claims 1, 5, 8, 12, 14, 18 and 21 to 23 are independent. Claims 2, 4, 7, 9, 11, 15, 17, 20 and 24 to 38 have been cancelled. Reconsideration and further examination are respectfully requested.

The drawings were objected to for informalities. The specification has been amended to address the Office Action's objections. Reconsideration and withdrawal of the objections are respectfully requested.

The Office Action objected to the title of the invention. The title has been amended. Reconsideration and withdrawal of the objection are respectfully requested.

Claim 20 was objected to for informalities. Claim 20 has been cancelled without prejudice or disclaimer of subject matter, and without conceding the correctness of the objection.

Claims 5, 12 and 18 were objected to because a phrase "seems just to be written in unclear English." (Office Action page 5). The Office Action requires correction. Claims 5, 12 and 18 have been amended; however, Applicant notes that the requirement is improper. (See MPEP § 2173.02 ("Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression

selected by applicants satisfy the statutory requirement.”)). Accordingly, this should be viewed as a traversal of the objections.

Claims 21, 22 and 23 were rejected under 35 U.S.C. § 112, first paragraph. Without conceding the correctness of the rejections, Applicant submits that the foregoing amendments obviate the rejections; however, Applicant notes that the rejections are improper. Specifically, the Office Action asserts the subject matter of the claims includes “the network device can go into sleep state 1) when conditions are met . . .” and contends the specification lacks support for this alleged subject matter. (Office Action page 6). However, the alleged subject matter that forms the basis of the rejections is not found in the claims. Therefore, the rejections are improper because they fail to properly determine what each claim covers as a whole and, as a result, the rejections do not identify a claim limitation at issue. (See MPEP §§ 2163(II)(A)(1) and 2163(III)(A)). Accordingly, this should be viewed as a traversal of the rejections.

Claims 1, 4, 8, 11, 14, 16 and 17, and claims depending from these claims, were rejected under 35 U.S.C. § 112, second paragraph. Without conceding the correctness of the rejections, which are traversed, Applicant submits that the foregoing amendments obviate the rejections. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Claims 1 to 4, 6, 8 to 11, 13 to 17 and 20 were rejected under 35 U.S.C. § 103(a) over U.S. Patent Publication No. 2001/0055123 (Ryan) and U.S. Patent No. 6,268,925 (Yamanaka). The rejections are respectfully traversed.

With specific reference to the claims, independent Claim 1 defines a control device that controls a cluster operation of a plurality of devices. The control device comprises a determination portion that determines whether a required number of devices for the cluster operation are in a stand-by state, and a restoring portion that restores a device by transferring the device from an energy saving state to a stand-by state, wherein the restoring is based on a determination by the determination portion. The control device also comprises a distribution portion that distributes a job to each device in the cluster operation based on a sum of devices reaching the required number. The sum of devices is the addition of the number of devices in the stand-by state and the number of devices transferring to the standby state by the restoring portion. The restoring portion determines a device to be restored among a plurality of devices in accordance with a specified restoring condition, then sets up the determined device to restore.

Claims 8 and 14 are directed to a method and a computer program, respectively, that generally correspond to the control device of Claim 1.

The applied references are not seen to disclose or to suggest the features of Claims 1, 8 and 14, and in particular, are not seen to disclose or to suggest at least the features of distributing a job to each device in the cluster operation based on a sum of devices reaching the required number, wherein the sum of devices is the addition of the number of devices in the stand-by state and the number of devices transferring to the standby state by the restoring portion, and determining a device to be restored among a plurality of devices in accordance with a specified restoring condition, then setting up the determined device to restore.

Ryan relates to a system for describing, planning, and automatically programming complex finishing tasks, particularly, printing and finishing operations (abstract of Ryan). In particular, a table of job attributes is retrieved for a sub-set of total devices that are available for use. (paragraph [0070]). This sub-set of available devices is used to determine which device combinations and sequences could be used for printing.

Id. By considering only the available devices, Ryan teaches a system that “enables a device that is broken, is in use, or is being serviced to be taken ‘off line’ in relation to a job being processed when such equipment is unavailable.” Id.

In contrast to the present invention, the system of Ryan makes no determination whether devices are in a stand-by state, much less distributes a job to each device in the cluster operation based on a sum of devices reaching a required number, wherein the sum of devices is the addition of the number of devices in a stand-by state and the number of devices transferring to the standby state by a restoring portion, and determining a device to be restored among a plurality of devices in accordance with a specified restoring condition, then setting up the determined device to restore.

In addition, not only does Ryan lack disclosure of determining a device to be restored among a plurality of devices in accordance with a specified restoring condition and then setting up the determined device to restore, Ryan teaches away from such a restoring function. Specifically, Ryan teaches a system in which devices that are “unavailable” are taken “off line” when considering which devices to use for a job.

Yamanaka is not seen to supply what is missing from Ryan. In particular, Yamanaka is directed to a single-printer system in which a wake-up command is sent to the

printer “when a printer driver is called in preparation for a printing operation.” (column 2, lines 17 to 18 of Yamanaka). In other words, the destination (laser printer 40) is selected and the print job is distributed based on simple user selection, for example, when a dialog box is used by the user to set the print mode. Thus, Yamanaka is not seen to disclose or suggest the features of distributing a job to each device in a cluster operation based on a sum of devices reaching a required number, wherein the sum of devices is the addition of the number of devices in a stand-by state and the number of devices transferring to the standby state by a restoring portion, and determining a device to be restored among a plurality of devices in accordance with a specified restoring condition, then setting up the determined device to restore.

Therefore, neither Ryan nor Yamanaka, neither alone nor in combination, disclose or suggest the features at least the features of distributing a job to each device in the cluster operation based on a sum of devices reaching the required number, wherein the sum of devices is the addition of the number of devices in the stand-by state and the number of devices transferring to the standby state by the restoring portion, and determining a device to be restored among a plurality of devices in accordance with a specified restoring condition, then setting up the determined device to restore.

Accordingly, independent Claims 1, 8 and 14 are believed to be allowable.

Independent Claim 5 defines a control device that controls a cluster operation of a plurality of devices. The control device comprises a selecting portion and a distribution portion. If the number of devices in a stand-by state is less than a required number of devices needed for the cluster operation, the selecting portion selects devices

from among the devices in an energy saving state for the remaining number of devices needed in the cluster. After selection, the distribution portion distributes a job to each device in the stand-by state and each selected device in the energy saving state. The distribution portion distributes the job so that an allocated portion of job to each device in the energy saving state that is selected by said selecting portion is less than an allocated portion of job to each device in the stand-by state.

Independent Claims 12 and 18 are directed to a method and computer program, respectively, that generally correspond to the control device of Claim 5.

The applied references are not seen to disclose or to suggest the features of independent Claims 5, 12 and 18, and in particular, are not seen to disclose or to suggest at least the feature of distributing a job so that an allocated portion of job to each device in an energy saving state that is selected by a selecting portion is less than an allocated portion of job to each device in the stand-by state.

As discussed above, Ryan makes no determination whether devices are in a stand-by state or an energy saving state. Moreover, Ryan teaches that “unavailable” devices are not considered for jobs. Thus, Ryan cannot disclose anything having to do with distributing a job so that an allocated portion of job to each device in an energy saving state that is selected by a selecting portion is less than an allocated portion of job to each device in the stand-by state.

Yamanaka is not seen to cure the deficiencies of Ryan. As discussed above, Yamanaka is directed to a single-printer system. Therefore, Yamanaka does not disclose or suggest anything about distributing a job so that an allocated portion of job to each device

in an energy saving state that is selected by a selecting portion is less than an allocated portion of job to each device in the stand-by state.

Accordingly, independent Claims 5, 12 and 18 are believed to be allowable.

Independent Claim 21 defines a network device having a printing unit in which a cluster operation can be realized in cooperation of a plurality of network devices, each of which having a printing unit. The network device comprises a determination portion that determines whether the network device is included a cluster system. The determination is made when conditions, being intrinsic to the device itself, for transferring to an energy saving state are met. The network device also comprises a state transfer portion that transfers the network device to the energy saving state. If the determination portion determines that the network device is included in the cluster system, the state transfer portion transfers the network device to an energy saving state only in accordance with an instruction from an external device, irrespective of the conditions.

Applicant submits that the features of Claim 21 are not disclosed or suggested by the applied references. Accordingly, Claim 21 is believed to be allowable.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

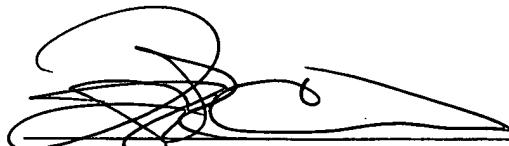
Finally, the Office Action takes Official Notice that “it is well known in the prior art that a printer/copier/multi-function device can act as a server and include

functions thereof.” (Office Action page 16). The Official Notice is respectfully traversed, since the Official Notice is improper. (See MPEP § 2144.03(B) (“If such notice is taken, the basis for such reasoning must be set forth explicitly. The examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge.”) (citation omitted)). Specifically, the Office Action provides no evidence or reasoning supporting the Official Notice; therefore, the requirements for Official Notice have not been satisfied.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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